

WHAT IS CLAIMED IS:

1. An optical system comprising:  
a variable wave plate;  
a reticle; and  
a first optical device,  
wherein the reticle is positioned along an axis of a light beam path between a source of the light beam and the first optical device, and  
wherein the variable wave plate is positioned along the axis adjacent the reticle and between the source of the light beam and the first optical device.
2. The optical system of claim 1, further comprising:  
said variable wave plate is a Berek's compensator.
3. The optical system of claim 1, further comprising:  
said variable wave plate is a Soleil-Babinet compensator.
4. The optical system of claim 1, wherein the first optical device comprises:  
a first lens group;  
a reflective device; and  
a second lens group.
5. The optical system of claim 4, wherein the first lens group comprises lenses having positive power.
6. The optical system of claim 4, wherein the second lens group comprises lenses having negative power.

7. The optical system of claim 4, wherein the reflective device directs light exiting the first lens group towards to second lens group

8. The optical system of claim 1, further comprising:  
a beam directing system; and  
a second optical device.

9. The optical system of claim 8, wherein the beam directing system comprises:  
a beam splitter; and  
a reflective device.

10. The optical system of claim 9, wherein:  
light exiting the first optical device is directed to the reflective device using the beam splitter; and  
light reflected from the reflective device is passed through the beam splitter and is received by the second optical device.

11. The optical system of claim 9, further comprising:  
a first quarter-wave plate positioned between the beam splitter and the reflective device; and  
a second quarter-wave plate positioned between the beam splitter and the second optical device.

12. The optical system of claim 8, wherein the second optical device includes a lens group having positive power.